

REMARKS

The following remarks are prepared in response to the Office Action mailed June 4, 2003. The Office Action rejected claims 2, 5, 6, 9, 20 and 22-25 under 35 U.S.C. § 103(a). Claims 2, 5, 6, 18-21 and 26-33 remain pending in the application. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Objection to the Specification

Applicants have amended the title to more accurately reflect the claimed subject matter.

The Office Action objected to the abstract because it contains more than 150 words. Applicants have provided a replacement abstract that contains less than 150 words. Therefore, Applicants respectfully request the Examiner to withdraw the objection to the specification in view of the replacement abstract.

Objection to the Claims

The Office Action objected to claims 2-9 and 18-19 because the word "plasm" should be "plasma". Applicants have amended the claims to correct the informalities. Therefore, Applicants respectfully request the Examiner to withdraw the objection in view of the amendments to claims 2-9 and 18-19.

The Office Action also objected to claims 20-27 because the Examiner alleges that the word "loss factor tan" of the dielectric layer is unclear. In particular, the Examiner stated that one skilled in the art would not know how to calculate the loss factor tan of a material. Applicants respectfully disagree. The loss factor tan represents the power loss in the dielectric layer (see e.g., page 3, lines 14-15). The specification describes how to measure the loss factor tan (see e.g., from page 31, line 15 to page 32, line 4). Specifically, the specification states that the loss factor tan is measured using an LCR meter (e.g., 4284A made by Hewlett Packard Company). In addition, the term "loss factor tan" is well-known in the relevant art. Applicants submit herewith page 1360 of an Iwanami Dictionary of Physics and Chemistry, published December 5, 1983 (Exhibit A) describing that the loss factor tan is a well-known term used in the relevant art. Accordingly, one skilled in the art will know how to calculate the loss factor tan of any material. In order to expedite prosecution, however, Applicants have canceled claims 22-25, and therefore the objection to these claims is now moot. In view of the above remarks,

Applicants respectfully request the Examiner to withdraw the objection to claims 20, 21, 26 and 27.

Rejection Under 35 U.S.C. § 103(a)

The Office Action rejected claims 2, 5, 6, 9, 20 and 22-25 under 35 U.S.C. § 103(a) as being unpatentable over Shoji (JP 09-278482). Applicants have canceled claims 22-25 and therefore the rejection to these claims under 35 U.S.C. § 103(a) is now moot. With regard to claims 2, 5, 6, 9 and 20, Applicants respectfully traverse this rejection.

Independent Claim 20

The Shoji reference fails to disclose, teach or suggest a plasma display panel including a dielectric layer made of a glass that contains at least ZnO and 10 wt% or less of R_2O and does not substantially contain PbO and Bi_2O_3 , and a product of permittivity ϵ and loss factor $\tan \delta$ of the dielectric layer is 0.12 or less, wherein R is selected from a group consisting of Rb, Cs, Cu, and Ag as recited in amended independent claim 20. In paragraph 6 of the Office Action, the Examiner alleges that the Shoji reference in Table 1, sample 1, discloses the claimed dielectric layer. Applicants respectfully disagree. Sample 1 does not disclose the combination of compounds as recited in claim 20. Specifically, sample 1 does not disclose, teach or suggest combining ZnO with any one of the following compounds: Rb_2O , Cs_2O , Cu_2O and Ag_2O . In fact, none of these compounds are disclosed in Table 1 or anywhere in the Shoji reference. Accordingly, the Shoji reference is devoid of any suggestion to use or combine the compounds in the manner recited in claim 20. The obviousness rejection of independent claim 20, therefore, is improper and should be withdrawn.

Independent Claim 33

Dependent claim 9 has been rewritten in independent form as independent claim 33, which includes all the limitations of independent claim 20. With regard to independent claim 33, the Shoji reference fails to disclose, teach or suggest a plasma display panel including a dielectric layer composed of a ZnO-base glass which contains 35-60 wt% of ZnO, 25-45 wt% of B_2O_3 , 1-12 wt% of SiO_2 , 1-10 wt% of Al_2O_3 , 5 wt% or less of K_2O , and 10 wt% or less of R_2O and does not substantially contain PbO and Bi_2O_3 , and the permittivity ϵ of the dielectric layer is 7 or less

and a product of permittivity ϵ and loss factor $\tan \delta$ of the dielectric layer is 0.12 or less, wherein R is selected from a group consisting of Rb, Cs, Cu, and Ag. In paragraph 10 of the Office Action, the Examiner alleges that the Shoji reference in Table 1, sample 2, discloses the claimed dielectric layer. Applicants respectfully disagree. Sample 2 does not disclose the combination of compounds as recited in claim 33. Specifically, sample 2 does not include any K_2O . Furthermore, sample 2 does not disclose, teach or suggest combining ZnO with any one of the following compounds: Rb_2O , Cs_2O , Cu_2O and Ag_2O . In fact, none of these compounds are disclosed in Table 1 or anywhere in the Shoji reference. Accordingly, the Shoji reference is devoid of any suggestion to use or combine the compounds in the manner recited in claim 33. The obviousness rejection of claim 9 (now independent claim 33), therefore, is improper and should be withdrawn.

Dependent Claims 2, 5 and 6

Claims 2, 5 and 6 all depend from independent claim 20, adding features or elements that further distinguish over the cited Shoji reference. For these reasons, and for the reasons set forth above with respect to independent claim 20, the obviousness rejections of claims 2, 5 and 6 are improper and should be withdrawn.

Allowable Subject Matter

Applicants note with appreciation that in paragraphs 15 and 16 of the Office Action, claims 3, 4, 7, 8 and 10 were indicated as allowable if rewritten in independent form and claims 21, 26 and 27 were allowed. Applicants have rewritten claims 3, 4, 7, 8 and 10 in independent form as new claims 28-32. Accordingly, claims 21 and 26-32 should now be in condition for allowance.

CONCLUSION

In view of the amendments and remarks made above, it is respectfully submitted that the pending claims are in condition for allowance, and such action is respectfully solicited. If any matters remain outstanding after consideration of the response that the Examiner believes might be expedited by a telephone conference with Applicants' representative, he is respectfully requested to call the undersigned attorney at the number indicated.

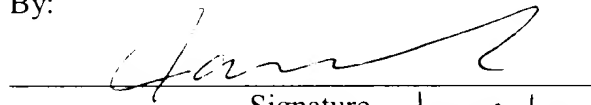
Authorization is hereby given to charge our Deposit Account No. 19-2814 for any charges that may be due. Furthermore, if any additional extension is required, then Applicants hereby requests such an extension.

Respectfully submitted,

SNELL & WILMER L.L.P.

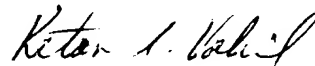
I hereby certify that this document and fee is being deposited on September 2, 2003 with the U.S. Postal Service as first class mail under 37 C.F.R. § 1.8 and is addressed to Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

By:



Signature James Lee

Dated: September 2, 2003



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